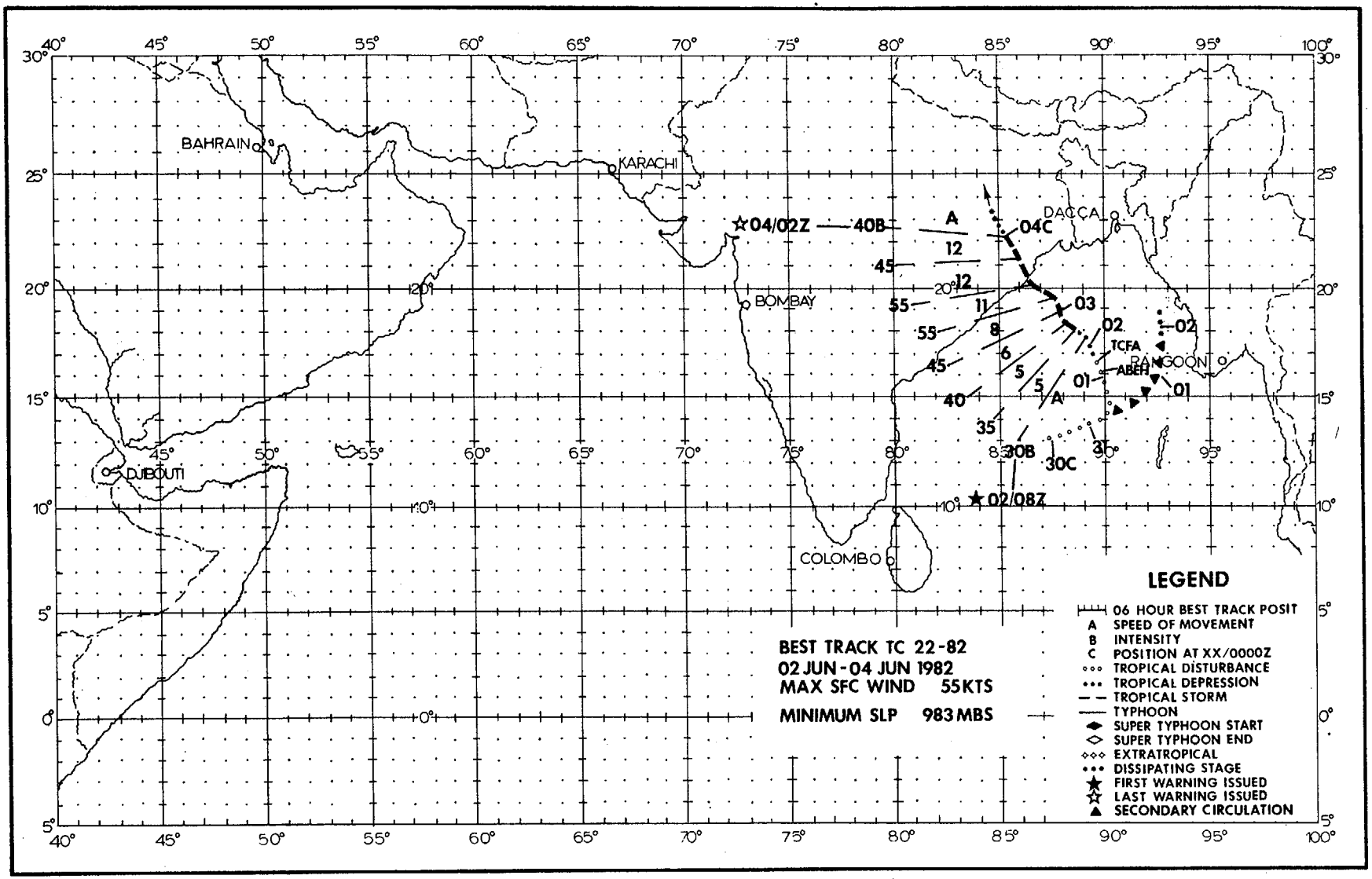

FWC/JTWC GUAM 3142/62 (NEW 2-76)

Tropical Cyclone 22-82 was the second significant tropical cyclone to develop in the Bay of Bengal during the spring (monsoon) transition season. During the last week of May, there was considerable convective activity over the central Bay of Bengal, resulting in two Tropical Cyclone Formation Alerts (TCFA) that were issued for a disturbance which tracked northeastward and moved into Burma on 29 May.

At 290000Z, a new convective area could be detected on satellite imagery moving out of a monsoon cloud band near 9N in the central Bay. During the ensuing three days, the convective area drifted northward with little evidence of a closed surface circulation. The synoptic environment in the Bay of Bengal at this time was dominated by strong (30 to 40 kt (15 to 21 m/sec)) westerly flow south of 9N, and by a 996 mb heat low over northern India.

By 010600Z June, the convective mass became more organized as an upper-level anticyclone could be analyzed from synoptic data, while visual satellite imagery revealed an exposed low-level circulation some 120 nm (222 km) to the northeast of the convective area. During the next 12 hours, satellite imagery indicated continued convective organization and at 011835Z, a TCFA was issued with the stipulation that the potential for significant tropical cyclone development was good, provided that either the low-level and upper-level features became better aligned or a new circulation developed under the convection. By 020800Z, when satellite data suggested that the latter case had occurred (the convective system had continued to develop and the exposed low-level circulation could no longer be detected on visual imagery), the first warning was issued for Tropical Cyclone 22-82.

During its short lifetime, Tropical Cyclone 22-82 followed a fairly straight, and climatological, northwestward track. Initially moving at 5 kt (9 km/hr), Tropical Cyclone 22-82 steadily increased it forward speed to 12 kt (22 km/hr) and intensified until making landfall at 031400Z. Satellite data from Air Force Global Weather Central (AFGWC) (Figure 3-30-1) and radar reports received at the Indian regional forecast center, indicated that Tropical Cyclone 22-82 was developing an eye when landfall was made just north of Paradip, 150 nm (278 km) southeast of Calcutta. In the coastal districts near Paradip and Orissa, where the tropical cyclone hit hardest, casuality reports indicated that more than 140 people were killed and more than 500,000 homes were destroyed. After landfall, Tropical Cyclone 22-82 rapidly dissipated as it tracked into the extreme southern portion of the Ganges River Valley.

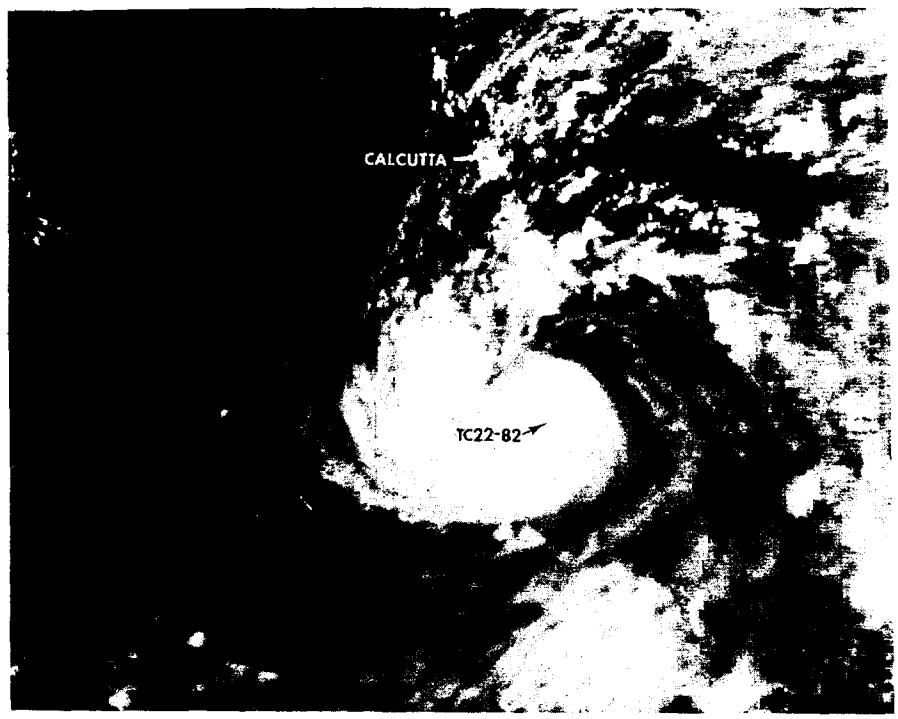

Figure 3-30-1. Tropical Cyclone 22-82 about five hours prior to landfall with an irregular 15 nm (28 km) eye near the center of the central dense overcast, 030858Z June (NOAA 7 visual satellite imagery from AFGWC, Offutt AFB, Nebraska).